

FULL AUTOMATIC TURNTABLE

KD-76F KD-76FC (FCL)

INSTRUCTION MANUAL

KENWOOD

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90/12 11 10 9 8 7 6 5 4 3 2 1 89/12 11 10 9 8 7 6 5 4 3 2 1

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.

Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.

We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Before applying power

Important!

U.S.A. and Canada

These units are not equipped with an AC voltage selector switch and the discussion of such a switch that follows should be disregarded.

All other countries

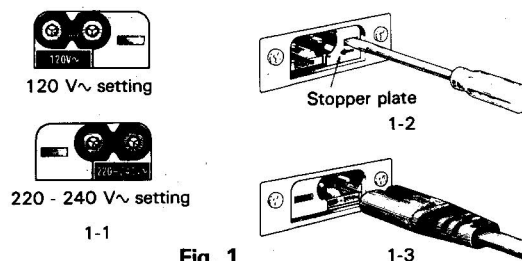
Units shipped to countries other than above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

This unit operates on 120 volts or 220 — 240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following direction.

Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.



1. Before plugging in this unit, make sure that the position of the AC voltage selector conforms to your line (mains) voltage. If not, it must be reset. See Fig. 1-1.
2. To reset the selector, slide the stopper plate to the opposite side with a screwdriver or other pointed tool. See Fig. 1-2.
3. Insert the power cord securely. See Fig. 1-3.

WARNING:

TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Safety precautions

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Parts nomenclature

- Check that the packing carton contains all the component parts shown in the figure below before you begin to assemble the turntable.
- **The EP adaptor** is packed together with the Instruction Manual and **the auto size selector malfunction prevention sheet** is packed together with the turntable platter.
- Keep the packing materials in case you have to repack in future (for moving, servicing, etc.).
- See page 3 for assembly procedures.
- Before operation, be sure to remove the tonearm retaining screws in accordance with the instruction given below.

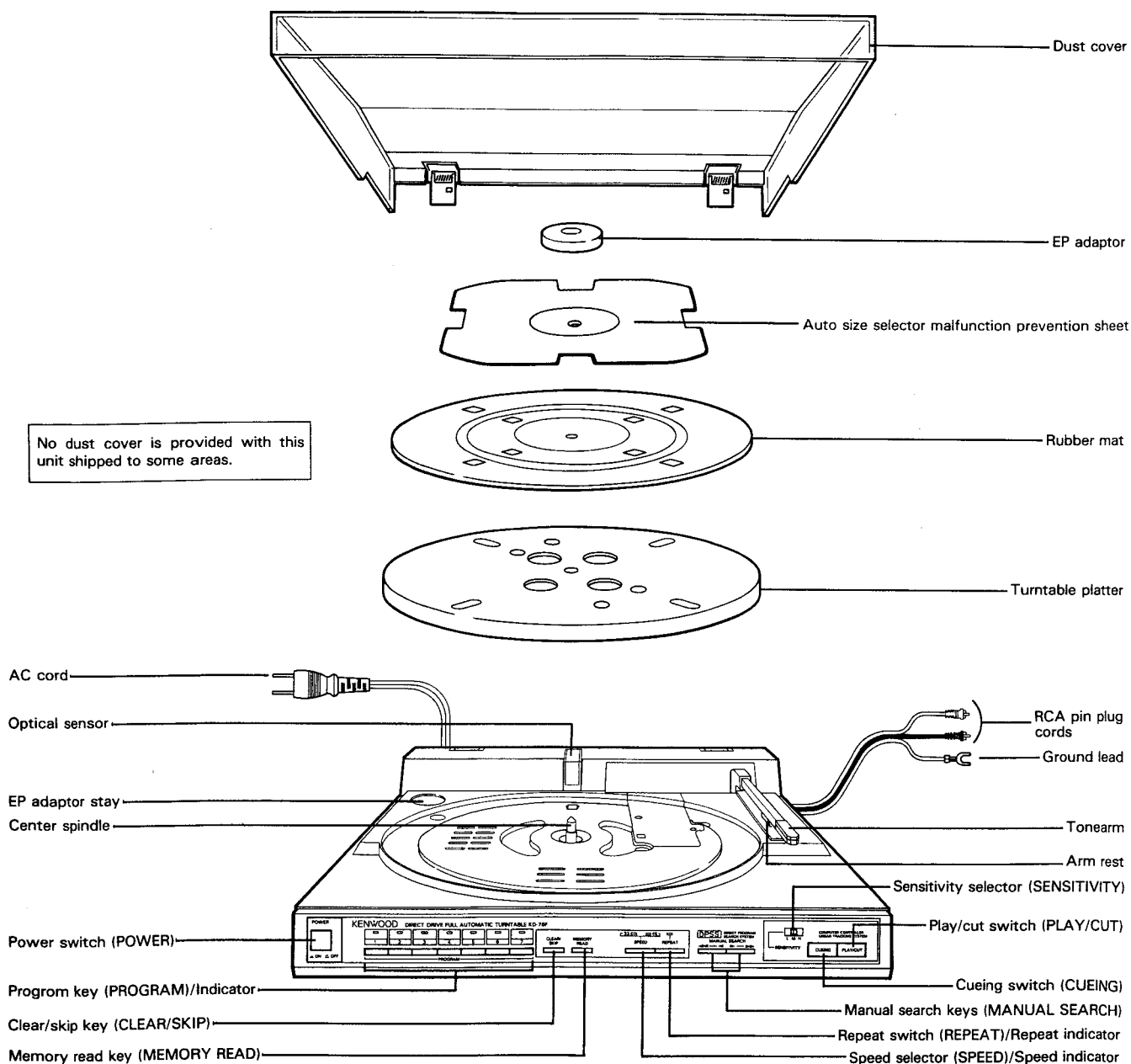


Fig. 2

Tonearm retaining screw

The tonearm is secured with 2 screws to prevent damage during shipment. Be sure to remove the screws with red heads from the bottom plate before use.

Remove the screw with the rubber cushion ① first, then ②.

These screws and spacer should be retained for use in transportation.

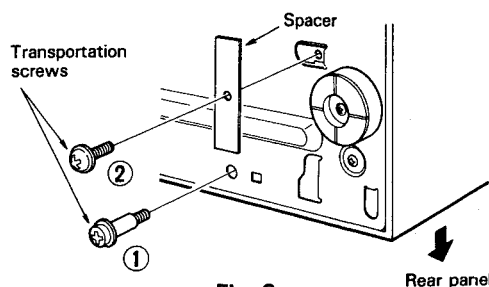


Fig. 3

Reassembly and connection

1. Placing turntable platter and rubber mat

Carefully place the platter on the center spindle. Place the rubber mat on the platter.

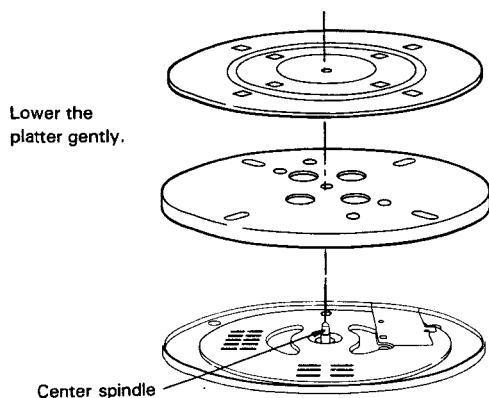


Fig. 4

2. Connections

Turn off the power to your amplifier or receiver. Connect the RCA pin-plug cords, ground lead, then the AC cord.

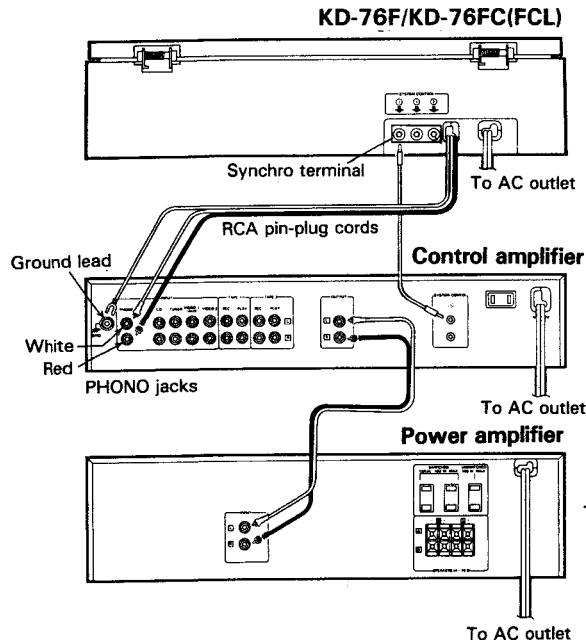


Fig. 5

3. Connecting the system control jacks (synchro terminals)

The synchro terminal is the control terminal for synchro recording when KD-76F/KD-76FC(FCL) is connected to a unit which is equipped with a synchro terminal. Connect this terminal to the synchro terminal of the related unit with the supplied synchro cord. For synchro recording, the RCA pin-plug cord and ground lead should be connected. (Synchro recording is not possible when only the synchro cord is connected.) Set the cassette deck to the recording mode, and press the play/cut (PLAY/CUT) switch, synchro recording will be performed. For details, refer to the Instruction Manual of the related unit. (Control amplifier KC-206, Tape deck KX-96W/KX-76R, etc.)

Note:

As a microcomputer is used in this unit, beat noise may be generated when receiving broadcasting with the tuner. In such cases, turn off the power switch of this unit or adjust the tuner antenna. Incorrect ground lead connection may sometimes make impossible to activate the muting feature and synchro operation.

Operating instructions

Before playing records

- When a transparent or colored record is played in automatic mode, the auto size selector sometimes malfunctions. To play these records, place the auto size selector malfunction prevention sheet supplied on the turntable platter. To play an LP of this type, place the sheet so that all the turntable platter hole are covered with the sheet. To play an EP, place the sheet so that the turntable platter hole can be seen through the notches.
- When a 25 cm record is played, the auto size selector works to set 45 rpm for 17 cm. So correct it to 30 cm by using the malfunction prevention sheet, and play the record by manual operation.
- When the power switch (POWER) is set to ON, the indicator on the tip of the cartridge lights.
- The sensor SENSITIVITY selector is provided on the front panel of the unit. In program playback or skip selection mode, the stylus lowering position varies depending on the record surface condition and the amount of light in the room.
To compensate for these operations, use the sensor SENSITIVITY selector.
M: For normal operation.
L: When the tonearm is lowered in the preceding tune.
H: When the tonearm is lowered in the next tune.

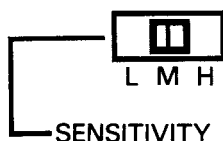


Fig. 6

- If there is no record on the turntable platter, the tonearm moves to the lead out position, and returns to the armrest.

Automatic play

Place a record on the turntable platter, and simply press the play/cut switch (PLAY/CUT). Then, the record will be played from the first tune on.

1. Press the power switch (POWER).
2. Open the lid, and place a record on the turntable platter.
3. Close the lid.
4. Press the play/cut switch (PLAY/CUT). The turntable platter starts to rotate and at the same time, the record size and play speed are automatically sensed and set. (Auto size selector operation)
Then, the tonearm shifts to the lead-in groove. The stylus lowers onto the record, and play begins. (Auto-in operation)

Auto size selector:

LP record	Size: 30 cm Speed: 33-1/3 rpm
EP record	Size: 17 cm Speed: 45 rpm

To play an LP record at a speed of 45 rpm or an EP record at a speed of 33-1/3 rpm, press the speed selector (SPEED) to obtain the desired speed.
When an EP record is played back at a speed of 33-1/3 rpm, the speed of 45 rpm is automatically set by the auto size selector after play starts even if

the speed of 33-1/3 rpm is indicated first. After starting play, press the speed selector switch to set 33-1/3 rpm.

5. When play ends, the tonearm automatically returns to the rest position and the turntable platter stops rotating. (Auto return operation)
6. When the play/cut switch (PLAY/CUT) is pressed during play, play stops and the tonearm automatically returns to the rest position and the operation stops. (Auto cut operation)

Manual Play

1. Set the power switch (POWER) to ON.
2. Place a record on the turntable platter. The speed is automatically set to 33 rpm.
Select the correct speed according to the record to be played.
3. When the manual search (◀ — ◀) forward key (MANUAL SEARCH) is pressed, the tonearm moves to the left. When the manual search (▶ — ▶) reverse key (MANUAL SEARCH) is pressed, the tonearm moves to the right. Use the manual search keys (MANUAL SEARCH) to move the tonearm to the required position. (The tonearm moves slowly for the first 2 second, then moves quickly.)
4. Press the cueing switch (CUEING). The tonearm lowers and play starts. When play finishes, the tonearm automatically returns to the armrest.

Note:

When the tonearm is moved to the innermost position by keeping the manual search (◀ — ◀) forward key (MANUAL SEARCH) pressed, the tonearm stops without lowering onto the turntable platter. When the cueing switch (CUEING) is pressed at this time, the tonearm automatically returns to the arm rest.

Program play

The direct program search system enables you to pick up the tunes you want and play them in the orders you prefer.

1. Set the power switch (POWER) to ON.
2. Place a record on the turntable platter.
3. Press the program keys (PROGRAM) in order of the tunes you want to play. For example, press program key "3" first when you want to listen to the third tune first.
4. Press the clear/skip key (CLEAR/SKIP) to erase the programs you have made.

To check the programmed order of tunes, press the memory read key (MEMORY READ). The program indicator flash for a few seconds in the programmed order of tunes.

Note:

Program change is not possible during play.
Up to 7 tunes can be programmed. For a record with less than 7 tunes, the number of tunes included on the record can be programmed.
For a record with more than 8 tunes, play the record in automatic or manual play mode.

5. Press the play/cut switch (PLAY/CUT). The turntable platter starts rotating and the program play starts.
6. The program indicator of the tune being played flashes.

7. When program play finishes, the tonearm automatically returns to the armrest and the turntable platter stops rotating.

To repeat program play, press the repeat switch (REPEAT) during program play.

Note:

When the manual search keys (MANUAL SEARCH) or the play/cut switch (PLAY/CUT) are pressed during program play, program play mode is released and the program indicator goes off.

Synchro operation

With the KD-76F/KD-76FC(FCL) connected to a unit equipped with a synchro terminal, synchro recording is possible. For detailed operation of synchro recording, refer to the Instruction Manual of the related unit.

Skipping to the next tune

When the clear/skip key (CLEAR/SKIP) is pressed during program play, the next programmed tune is played. However, when the key is pressed while the last tune is being played, the tonearm returns to the arm rest.

Direct tune selection

To repeat the tune currently being played: Press the corresponding program key during program play.

To skip tunes: Press the program key of the tune to be played during program play. Play of the tune being currently played is stopped and the tune of the pressed program key is played. The indicators of the skipped tunes go out at this time.

Suspending play

To suspend play, press the cueing switch (CUEING). The tonearm lifts.

To resume play, press the cueing switch (CUEING) again.

The tonearm lowers and play starts from almost the same position where it left off.

Repeat play

To repeat play, press the repeat switch (REPEAT). The REPEAT indicator lights and in the automatic play mode, one side of the record is repeatedly played. During program play, all the programmed tunes are repeated.

To release the repeat play mode, press the repeat switch (REPEAT) again. The REPEAT indicator goes off and in the automatic play mode, one side of the record is played to the last tune and the tonearm returns to the rest position and the operation stops.

During program play, all the programmed tunes are played and the tonearm returns to the arm rest. Repeat play is performed 16 times.

Note:

Repeat play is not possible during manual play. Do repeat play during automatic or program play. If manual operation is performed during automatic or program play, the repeat play mode is released. When the play/cut switch (PLAY/CUT) is pressed during repeat play, play stops and the tonearm returns to the rest position and the repeat play mode is released.

Maintenance

Motor lubrication

The motor employs permanently-lubricated bearings. It will operate for more than 20,000 hours without attention to lubrication.

Periodic check-up

Because a turntable is a mechanical device it is subject to the effects of wear and misadjustment that occurs due to normal handling. Even if your unit appears to function normally, a periodic check-up at intervals of two years or so is recommended to ensure a long service life and proper operation.

Check with your dealer or authorized service representative.

Stylus replacement

A replacement stylus may be obtained from your dealer.

1. Set the power switch (POWER) to OFF. Pull out the stylus in the direction of the arrow shown in the figure. (① → ②)
2. Hang the hook of the stylus on the rear of the cartridge groove, then push up in the direction of the arrow. (③ → ④)

Note:

Be sure to turn off the amplifier power switch before replacing the stylus.

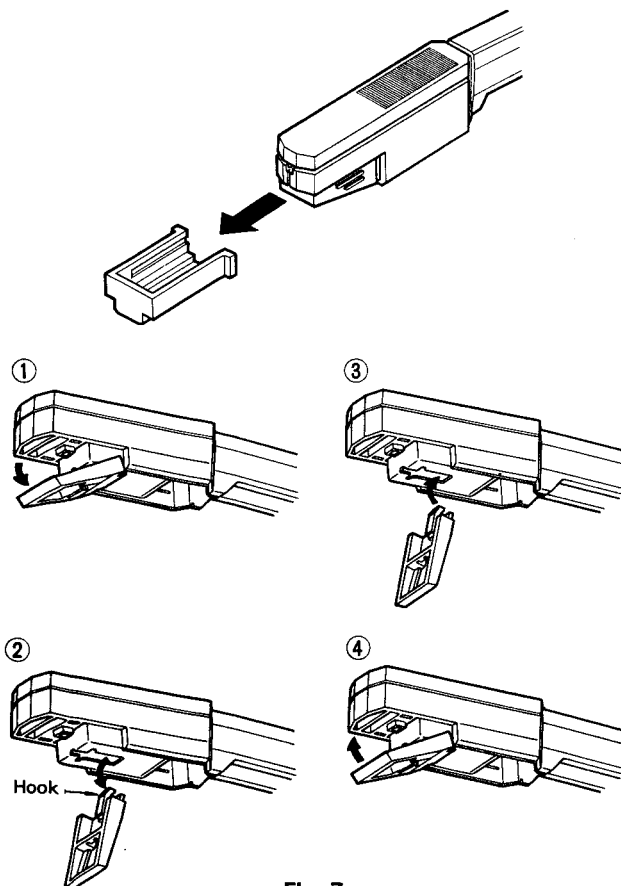


Fig. 7

Notes on installation

Do not place the unit in a place which is exposed to direct sunlight, near a heating appliance, etc.

Do not place a vase containing water, makeup, etc. on the unit. Do not use in a humid place.

Choose a location that is relatively free from vibration or excessive dust.

Safety precautions

Never remove the case. If the internal parts are touched, accidentally, a serious electric shock might occur. Touching the power plug when your hands are wet may result in a serious electric shock.

Never pull, bend or extend the power cord. This could damage the power cord, resulting in a broken cord or short-circuit.

Cleaning

Do not use volatile solvents such as alcohol, paint thinner, gasoline, benzene, etc. to clean the cabinet. Use a silicone cloth or a clean dry cloth.

Note on record playback

- The following records sometimes cannot be played back in program playback or skip tune mode. However, this is not a malfunction of the unit. Play back such records in manual mode.
 1. Gaps between tunes are very narrow (A).
 2. Modulated groove pitch is very large (B).
 3. Short tune (C).
 4. Warped or eccentric records.
 5. Colored records.
 6. Stained, dirty or scratched records.
 7. Records whose grooves have different reflections.
 8. Records with sounds recorded on the modulated groove between tunes.
 9. Off-size records or phono sheets.

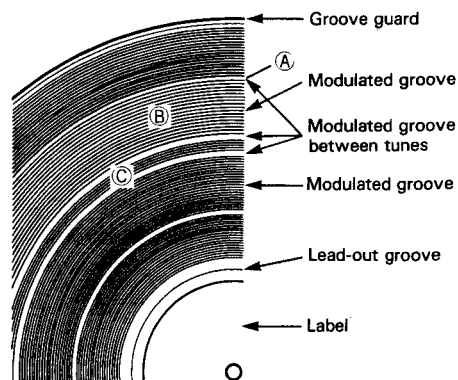


Fig. 8

In case of difficulty

If difficulty is experienced after making the initial set up, the table below might help to eliminate the problem. If the trouble cannot be corrected, check with your dealer.

Symptom	Cause	Correction
No sound from both left and right channels or one channel.	1. Turntable output cables disconnected. 2. The function switch of the amplifier is not set to PHONO.	1. Check connections to amplifier. 2. Set the function switch to PHONO.
Loud hum, no music.	Poor connection of turntable output cables.	Make solid connections to amplifier.
Loud hum with music.	1. Turntable output cable picking up hum from AC cord. 2. The ground lead of the turntable is not connected to GND terminal of the amplifier.	1. Separate output cables from AC cord or reverse AC cord plug. 2. Connect the ground lead to the GND terminal of the amplifier.
Buzzing noise with music.	Turntable output cable picking up TV signal.	Relocate output cord for minimum pickup.
Howling drowns out music when volume is increased.	Speaker vibration is picked up by turntable.	Separate turntable from speakers.
Turntable platter does not turn.	Poor AC plug contact.	Check connection. Make sure AC outlet is active.
Poor tracking.	Excessive dust on record or stylus.	Remove dust from stylus or record.
Synchro recording is not possible.	1. The synchro cord is not connected. 2. The cassette is not loaded correctly. 3. The record lock-out tab on the cassette has been removed. 4. The cassette deck is in playback mode.	1. Connect the synchro cord securely. 2. Load the cassette tape correctly. 3. Use a new cassette or place a piece of adhesive tape over the opening from which the tab has been removed. 4. Set the cassette deck in stop mode.

Specifications

Motor and Turntable

Drive System.....	Direct-drive
Motor.....	Coreless & slotless FG servo motor
Turntable Platter.....	29.8 cm (11-3/4") diameter 0.63 kg (1.4 lb) weight
Speeds.....	2 speeds, 33-1/3 and 45 rpm
Wow & Flutter.....	0.025% (WRMS) DIN: 0.05%
S/N (Rumble).....	DIN: 40 dB (DIN A) DIN: 75 dB (DIN B)

Tonearm

Type.....	Linear tracking tonearm
Tracking Error.....	±0.2°
Tracking Force	
Variable Range.....	2.2 grams (fixed)

Cartridge

Type.....	V-64A (VM cartridge with photo sensor)
Frequency Response.....	20 ~ 20,000 Hz
Channel Separation.....	Better than 22 dB (1,000 Hz)
Output Voltage.....	2.5 mV (1,000 Hz, 5 cm/sec.)

Output Balance.....	2.0 dB (1,000 Hz, 5 cm/sec.)
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Load Impedance.....	47 k ohms
Stylus.....	0.6 mil diamond
Optimum Tracking Force.....	2.2 grams
Compliance.....	7 × 10 ⁻⁶ cm/dyne
Replacement Stylus.....	N-64

Miscellaneous

Power Requirements.....	AC 120 V, 60 Hz: U.S.A. and Canada AC 120 V/220-240V, 50/60 Hz (Switchable): Other countries
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Power Consumption.....	10 watts
Dimensions.....	W 420 mm (16-17/32") H 103 mm (4-1/16") D 359 mm (14-1/8")

Weight.....	5.7 kg (12.6 lb)
Synchro Terminals.....	Serial × 2 (ST MINI) Parallel × 1 (ST MINI)

Supplied Accessories.....	EP adaptor Auto size selector malfunction prevention sheet Synchro cord
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Note:

We follow a policy of continuous advancements in development. For this reason specifications may be changed without notice.

System control connections

- Notes:**
- 1. For connections of the audio cords, refer to the "System connections" diagram.
 - 2. In some models except KT-76, the AC outlet is not provided. Obtain an extension cord to connect the power cords to the KT-76.

